21 31. A method for data transmission in a mobile radio system as claimed in claim 29, wherein a period of 26 GSM frames lies between a start of a first interruption phase and a start of a second interruption phase.

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22 32. A method for data transmission in a mobile radio system as claimed in claim 29, wherein a period of n1 GSM frames lies between a start of a first interruption phase and a start of a second interruption phase, and a period of n2 GSM frames lies between the start of the second interruption phase and a start of a third interruption phase.

23 33. A method for data transmission in a mobile radio system as claimed in claim 32, wherein a period of 6 GSM frames lies between the start of the first interruption phase and the start of the second interruption phase, and a period of 46 GSM frames lies between the start of the second interruption phase and the start of the third interruption phase.

24 34. A method for data transmission in a mobile radio system as claimed in claim 32, wherein a period of 16 GSM frames lies between the start of the first interruption phase and the start of the second interruption phase, and a period of 36 GSM frames lies between the start of the second interruption phase and the start of the third interruption phase.

25 35. A method for data transmission in a mobile radio system as claimed in claim 29, the method further comprising the step of:

transmitting, via the mobile station and after reception of at least one of a characteristic data packet and a data packet to be detected from the second base station, information for influencing insertion of further interruption phases to the first base station.

26 36. A mobile station, comprising:

a transmitter for transmitting data from and to a first base station based on a first transmission method;

an inserting unit for inserting pauses at least during particular transmission phases in the transmission of data is interrupted; and

a switch for switching to reception of data packets sent by a second base station based on a second transmission method, the second base station operating on a GSM standard which is based on a synchronization frame structure having a period of 51 frames, wherein interruption phases having an effective total duration of a maximum of 10 observation frames are inserted.

27 ~~37~~. A mobile station as claimed in claim 36, wherein a period of 52 GSM frames lies between a start of a first interruption phase and a start of a second interruption phase.

28 ~~38~~. A mobile station as claimed in claim 36, wherein a period of 52 GSM frames lies between a start of a first interruption phase and a start of a second interruption phase.

29 ~~39~~. A mobile station as claimed in claim 36, wherein a period of n1 GSM frames lies between a start of a first interruption phase and a start of a second interruption phase, and a period of n2 GSM frames lies between the start of the second interruption phase and a start of a third interruption phase.

30 ~~40~~. A mobile station as claimed in claim 36, further comprising:

a device for ascertaining a reception result for the data packets received from the second base station; and

a sending unit for sending to the first base station information which influences insertion of further interruption phases.

31 ~~41~~. A base station comprising:

a transmitter for transmitting data from and to a mobile station; and

an inserting unit for inserting interruption phases at least during particular transmission phases in which the mobile station interrupts the transmission of data and in which the mobile station is switched to reception of data packets sent by a